Rajiv Gandhi University of Health Sciences, Karnataka

Third Year B.Sc. Medical Imaging Technology Degree Examination – 27-Oct-2026

Time: Three Hours **Max. Marks: 100 Marks**

Diagnostic Imaging Techniques and Modalities (RS-4)

Q.P. CODE: 3293

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Explain instrumentation of MRI in detail
2. Describe the basic principles of computed tomography

OR

What is a transducer? Draw neat diagram of transducer and functions of its constituents

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Shimming and its types
4. Precautions while handling radionuclides
5. Generations of CT

OR

Write a note on PET

6. Radiopharmaceuticals
7. Ultrasound artifacts
8. QA of CT
9. CT guided biopsy
10. Modes of ultrasound

OR

Gamma camera

11. MR artifacts
12. MRA

SHORT ANSWER **10 x 3 = 30 Marks**

13. CT number
14. Radio-frequency coil and Gradient coil
15. Uses of radio nuclides in medicine
16. CT contrast agents and CM reactions
17. Doppler effect
18. Fat suppression techniques
19. Chemical shift artifacts
20. Piezo-electric effect
21. TLD badge
22. Triple phase CT

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